

REMARKS

This Response and Request for Reconsideration ("Response") is in response to the November 4, 2004 Office Action ("Office Action"). Claims 1-48 are pending, Claims 1-30, 43, 45, 46, and 48 were previously withdrawn from consideration.

SUPPORT

Amendments to the Drawings

The Office Action objects to the drawings for allegedly failing to "show every feature of the invention specified in the claims. Therefore, the "length dimension" of claims 38, 39 and 44 must be shown."

Applicants respectfully disagree with the Examiner. Figure 3 is a partial perspective view of an apparatus which shows "a multi-blade rotary saw 8 having a common axis 54" (page 7, line 29-30). At the top of Figure 3 is a double headed arrow, that is parallel to axis 54, which indicates the direction in which the "spacing 46 of the blades relative to each other" (page 13, line 30-31) is measured. The spacing of the blades, in turn, corresponds to the spacing of the channels. As stated in the specification at page 11, lines 22-27:

The pocket has a multiplicity of channels 32 (Figures 3-4), which are configured so as to allow the blades to pass through them. The spacing of these channels along the length of the sprocket helps define the width of the roll that is produced. The spacing is equal to the length of the walls 76 and 78...

As such, the length of "planar walls 76 and 78" (page 10, line 28) is equal to the spacing of the channels through which the blades pass. The spacing of the blades 46 and the axis upon which the spacing is measured is shown in Figure 3. Thus, the length parameter has been shown in the drawings as indicated by the spacing of the blades 46 in Figure 3. Applicants respectfully request that the objection to the drawings be withdrawn.

CLAIM REJECTIONS

In the Office Action, the Examiner rejected Claims 38, 39, 44, and 47 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. Claims 31-42, 44, and 47 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 31-36 and 42 are rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Wheless. Claim 47 is rejected under 35 U.S.C. § 102 (b) as allegedly being anticipated by Bush Jr. et al. (3,908,495). Claim 37 is rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Wheless in view of Bush Jr. et al. (3,908,495). Claims 38-41, and 44 are rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Wheless. Applicants respectfully assert that all of the claims comply with 35 U.S.C. § 112, first and second paragraph, 35 U.S.C. § 102 (b), 35 U.S.C. § 103(a) and all of the claims are allowable.

The Claims are Enabled.

Claims 38, 39, 44, and 47 are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. The Office Action states that it "is unclear from all the Figures and the specification what direction the length parameter is measured. Figure 4 labels every dimension....but the length." Applicants respectfully assert that because Figure 4 is a cross-sectional view of the pocket along the XY-plane and the length dimension is measured along the Z-axis, Figure 4 is not appropriate for labeling the length dimension.

Figure 3 is a partial perspective view of an apparatus which shows "a multi-blade rotary saw 8 having a common axis 54" (page 7, line 29-30). At the top of Figure 3 is a double headed arrow, that is parallel to axis 54, which indicates the direction in which the "spacing 46 of the blades relative to each other" (page 13, line 30-31) is measured. The spacing of the blades, in turn, corresponds to the spacing of the channels. As stated in the specification at page 11, lines 22-27:

The pocket has a multiplicity of channels 32 (Figures 3-4), which are configured so as to allow the blades to pass through them. The spacing of these channels along the length of the sprocket helps define the width of the roll that is produced. The spacing is equal to the length of the walls 76 and 78...

As such, the length of "planar walls 76 and 78" (page 10, line 28) is equal to the spacing of the channels through which the blades pass. The spacing of the blades 46 and the axis upon which the spacing is measured, as indicated by a double-headed arrow, is shown in Figure 3. Thus, the length parameter and direction in which it is measured would be understood by one skilled in the art in light of the disclosure provided in this application.

The Office Action further asserts that on "page 5 line 21, the phrase "plurality of circular saw blades, exerting an upward vertical force on the rolls" is unclear." Since Claims 38, 39, and 44 do not recite the element "plurality of circular saw blades...", Examiner's rejection under 35 U.S.C. § 112, first paragraph with respect to the aforementioned phrase, is interpreted to pertain to Claim 47.

Applicants respectfully disagree with the Examiner. The subject matter of the "upward vertical force" exerted by the saw blade on the rolls has been discussed in previous Office Actions. In the January 16, 2003 Office Action, Claim 47 was rejected under 35 U.S.C. § 112, second paragraph, as allegedly "being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention." In particular, the Office Action asserted:

The phrase "...the saw blades...exerting an upward vertical force on the rolls while the saw blades are in contact with the rolls..." is unclear.

Applicants respectfully refer to the April 16, 2003 Request for Reconsideration which was filed in response to the January 16, 2003 Office Action, a portion of which is presented here:

Applicants respectfully point out the discussion in the specification relating to the forces experienced by a log during the cutting process. Specifically, on page 15, lines 12-15, it is described that:

The force F_{Tot} is the total force due to the blade, and is the sum of the forces due to the blade impacting the log F_{Imp} and due to the friction between the blades and the log and/or divided rolls F_{Bld} .

If the saw blades are moved downward as illustrated in Figures 36 and 37, then F_{Imp} can have a downward vertical component. However, the force due to the friction between the blades and the log and/or divided rolls (F_{Bld}) contributes to an upward vertical force. On page 16, lines 4-6, the specification describes this F_{Bld} as:

... dependent on a wide variety of factors, including surface characteristics of the blade, lubricating additives, substrate composition, and relative speeds of operation ...

The total force of the blade could thus push the substrate out of the apparatus if the force is not counteracted due to the shape of the pocket.

The Examiner's response aforementioned rebuttal was provided in the June 27, 2003 Office Action:

Applicant's arguments with respect to claims....47 have been considered but are moot in view of the new ground(s) of rejection.

Applicants respectfully assert that since the Examiner did not disagree with argument presented in the April 16, 2003 Request for Reconsideration regarding the "upward vertical force" exerted by the saw blade on the rolls, that Claim 47 is definite. As such, one skilled in the art would understand the scope of Claim 47 from the disclosure provided in this application in light of the skill in the art.

With respect to the enablement of Claim 47, if Claim 47 is definite, then the phrase "a plurality of circular saw blades...exerting an upward vertical force on the rolls..." which is taken from the text of Claim 47, would be clear to one skilled in the art to which this application pertains. As such the phrase "a plurality of circular saw blades...exerting an upward vertical force on the rolls..." found elsewhere in the specification to enable one skilled in the art to make or use the invention would also be understood by one skilled in the art to which this application pertains.

Furthermore, the examiner appears to be relying on an improper assumption that finds no support in the specification, and in fact, is contradicted by the specification.

In particular, the examiner asserts that "[i]t appears that the cutting would be completed by the time the log reaches top dead center of the sprocket as shown in Figure 2. The vertical component of the saw blade's direction does not take effect until after the top dead center of the sprocket and after the log has been severed and no longer has any contact with the blade. The blade only makes contact, thereby applying a force, when the log is on the right side of the top dead center position of the sprocket." This assumption that the blade no longer makes contact after the cut is complete, is not supported by the specification, and is in fact, as discussed above, contradicted by the specification.

The Claims are Definite

Claims 31-42, 44, and 47 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action asserts that the phrase "pocket configured to maintain the log in the pocket without the use of an external structure to hold the log in the pocket" is allegedly unclear with respect to claims 31, 44, and 47. In particular, the Examiner cites the roll retention device (24) as an external structure which holds the log in the pocket.

Applicants respectfully traverse this rejection. "The pockets 14 in the distribution sprocket are shaped to hold logs during the cutting operation without the need to use a secondary clamping device." (page 5, lines 25-27). After the cutting operation is completed, a roll retention device (24) may or may not be used to guide the roll until it is dispensed. As stated in the specification of this application, page 16, lines 27-32:

If the rolls are allowed to fall from the pocket, it may be desirable to prevent this dispensing until the roll has been rotated to an exit point 56. This can be accomplished by methods known to those skilled in the art. For example, a belt 50 or series of belts can be used (Figures 5 and 7) to cover the openings of the pockets until the exit point is reached. In the embodiment shown in Figure 1, a shoe or plate 24 may be used.

Roll retention device (24) is not a claimed element of the invention, nor is it required to for the invention to function as intended. Thus, claims 31, 44, and 47 are definite with respect to the phrase "pocket configured to maintain the log in the pocket without the use of an external structure to hold the log in the pocket."

The Office Action further asserts that the term "a length" in Claims 38, 39, and 47 is allegedly unclear. Applicants respectfully disagree with the Examiner.

Figure 3 is a partial perspective view of an apparatus which shows "a multi-blade rotary saw 8 having a common axis 54" (page 7, line 29-30). At the top of Figure 3 is a double headed arrow, that is parallel to axis 54, which indicates the direction in which the "spacing 46 of the blades relative to each other" (page 13, line 30-31) is measured. The spacing of the blades, in turn, corresponds to the spacing of the channels. As stated in the specification at page 11, lines 22-27:

The pocket has a multiplicity of channels 32 (Figures 3-4), which are configured so as to allow the blades to pass through them. The spacing of

these channels along the length of the sprocket helps define the width of the roll that is produced. The spacing is equal to the length of the walls 76 and 78...

As such, the length of "planar walls 76 and 78" (page 10, line 28) is equal to the spacing of the channels through which the blades pass. The spacing of the blades 46 and the axis upon which the spacing is measured, as indicated by a double-headed arrow, is shown in Figure 3. Thus, the length parameter and direction in which it is measured would be understood by one skilled in the art in light of the disclosure provided in this application.

The Claims are Not Anticipated

Claims 31-36 and 42 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Wheless. Applicants respectfully traverse this rejection.

First, Applicants point out that Claims 31-36 and 42 were previously rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Wheless in the Office Action dated January 16, 2003. An argument was filed in the April 16, 2003 Request for Reconsideration in response to the January 16, 2003 Office Action. A portion of aforementioned argument is presented below:

The rejection of the claims under 35 U.S.C. § 102(b) is respectfully traversed. Applicants point out that Wheless does not teach or suggest each and every element of claims 31-36 and 42. In particular, Wheless does not teach or suggest the claimed configuration of the pocket. Independent claim 31 recites in part:

... a pocket, the pocket comprising
an open end;
a closed end;
a first planar surface;
a second planar surface, wherein the second planar
surface is larger than the first planar surface; and
a concave surface between the planar surfaces,
wherein the concave surface forms the closed end; ...

Applicants note that claim 31 has since been amended; the amendment was filed as part of the July 12, 2004 Request for Reconsideration. As amended, independent claim 31 recites:

“ . . . a pocket, configured to maintain the log in the pocket without the use of a external structure to hold the log in the pocket, the pocket comprising. . . .”

However, the argument presented in the April 16, 2003 Request for Reconsideration still pertains and continues as follows:

The Office Action correlates drawing element 15 of Wheless with the claimed pocket, and correlates drawing element 14 of Wheless with the claimed first planar surface. No specific drawing element or disclosure in Wheless has been correlated with the second planar surface as recited in the claims.

Applicants respectfully point out that the Office Action's correlations of elements of Wheless with the claimed aspects of the pocket are not consistent with the disclosure of the reference. The “recesses 15” of Wheless, which have been correlated with Applicants' pocket, are described in the reference at page 1, left column, line 52 through right column, line 12. In particular, the reference describes that:

These recesses curve inwardly from the periphery of the cradle in a direction opposite to the direction of rotation of the cradle, the inner portions of the recesses being substantially semicircular to better accommodate the logs which are, roughly, of cylindrical shape.

[p.1, left col., line 52 – right col., line 4; emphasis added]

and also describes that:

The curvature of the walls of the recesses is such that the logs will be retained therein ...

[p.1, right col., lines 7-9; emphasis added]

Thus, the walls of the recesses of Wheless are described as curved, and do not contain a planar portion.

In Figures 2-4 of Wheless, it does appear that the inner surface of the “hook-like formation, as shown at 14” (p.1, right col., lines 5-6) is planar. However, there is clearly no teaching or suggestion of a second planar surface in Wheless. The disclosure of the recesses in the reference only addresses the curvature of their walls, and does not mention another planar surface in the recesses. Moreover, there is nothing in Figures 2-4 to indicate that the recesses contain a second planar surface as recited in the claims. The claimed second planar surface is larger than the first planar surface, and a concave surface is situated between the second and first planar surfaces to form the closed end of the pocket. Accordingly, claims 31-36 and 42 are not anticipated by

Wheless, as the reference does not teach or suggest each and every element of the claims.

The Examiner's response to the aforementioned rebuttal was provided in the June 27, 2003 Office Action:

Applicant's arguments with respect to claims 31-42, 44 and 47 have been considered but are moot in view of the new ground(s) of rejection.

Applicants respectfully assert that since the Examiner did not disagree with argument presented in the April 16, 2003 Request for Reconsideration, the alleged rejection of Claims 31-42 35 U.S.C. § 102(b) as anticipated by Wheless presented in the Office Action dated January 16, 2003 is considered withdrawn.

Second, in the Office Action dated June 27, 2003 the Examiner clearly states that Wheless does not teach each and every element of the claimed invention as stated at page 2, point 2, lines 10-22:

Wheless discloses the invention including a cutting device (50), a pocket (15)...**but fails to disclose that the second surface is planar.**

[emphasis added]

Thus, by the Examiner's own admission, Wheless does not teach that the second surface is planar and therefore, does not teach or suggest each and every element of the claims. As such Wheless does not anticipate claims 31-36 and 42.

Applicants maintain that Wheless does not teach both a first and second planar surface. Applicants respectfully note that the Examiner has changed the alleged correlation of the first and second planar surfaces with the Wheless drawing. The Office Action now correlates a portion of element 14 of Wheless with the **second** planar surface as depicted in the marked up drawing of Figure 4 of Wheless, as provided in the current Office Action. Previously, in the January 16, 2003 Office Action, element 14 of Wheless was allegedly correlated with the **first** planar surface.

Irregardless of which of the first or second planar surfaces, but not both, are correlated with the Wheless element 14, the fact remains that Wheless does not teach both a first and second planar surface. As depicted in the marked up drawing of Wheless Figure 4 provided with the Office Action, section (84) depicted by the

Examiner which allegedly correlates with the second planar surface, does appear to be planar. However, section (83) depicted by Examiner which allegedly correlates with the first planar surface does not appear to be planar, especially in light of the Examiner's previous statement. This surface is clearly part of the "curvature of the walls of the recesses" (Wheless, p. 1, right col., lines 7-8) and or part of "the inner portions of the recesses being substantially semicircular" (Wheless, p. 1, right col., lines 1-2).

Applicants respectfully assert that the Wheless reference does not teach both a first and second planar surface. As such, the reference does not teach each and every element of the claims. Thus, the Wheless reference does not anticipate the claims, and Applicants respectfully request that the rejection be withdrawn.

Claim 47 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Bush, Jr. et al. (3,908,495). The Office Action asserts that the Bush, Jr. et al. reference discloses an apparatus including a plurality of pockets and a plurality of circular saw blades. Bush, however, does not disclose the claim requirement that the pockets support the substrate along its length. To the contrary this feature is entirely absent from Bush and Bush tends to teach away from this feature. The thin feeding means 36 and projecting arms 37 (see Fig. 1, col 5, lines 27-35) of Bush are not applicants' pockets, which would support the substrate along its length. There are substantial gaps between Bush's thin feeding means. In fact, it appears from the drawings that about less than 5% of the length of the log would be supported by Bush's thin feeding means. Thus, they can not anticipate claim 47.

Moreover, if the Bush feeding means were made to support the logs along the logs entire length, they would bind with the underlying supporting structures of Bush and thus render Bush inoperable. This is not surprising because the logs in Bush are sufficiently rigid to not need nor require support along their length.

The Claims are Not Obvious

Claim 37 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Wheless in view of Bush, Jr. et al. (3,908,495). Claims 38-41, and 44 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Wheless.

With respect to Claim 37, the Office Action asserts that "Wheless discloses the invention but fails to disclose that the cutting device comprises circular saw blades. '495 teaches a cutting device that comprises circular saw blades (58)." The rejection is respectfully traversed, as the applied references, alone or in combination, fail to provide each and every element of the claim. Specifically, as presented previously, the Wheless reference does not teach both a first and second planar surface. The combination of Wheless reference with the plurality of saw blades of the Bush, Jr. et al. reference would likewise not teach both the first and second planar surface of Claim 37. Thus, the combination of Wheless et al. and Bush, Jr. et al. do not teach or suggest each and every element of Claim 37. Accordingly, a prima facie case of obviousness has not yet been presented, and Applicants respectfully request that the Examiner withdraw this rejection.

With respect to Claims 38-41, and 44, the Office Action states in view of Wheless, "it would have been obvious to have made the dimensions of the pocket smaller." The rejection is respectfully traversed, as the applied reference fails to provide each and every element of the claim. Specifically, as presented previously, the Wheless reference does not teach both a first and second planar surface. Accordingly, a prima facie case of obviousness has not yet been presented, and Applicants respectfully request that the Examiner withdraw this rejection.

As noted above, Bush is far removed from the present invention and would teach away from it.

CONCLUSION

Applicants believe that currently pending Claims 31-42, 44 and 47 are patentable. Applicants respectfully request that the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned agent for the applicants via telephone if such communication would expedite this application.

Respectfully submitted,



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